

CECW-E

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
Washington, DC 20314-1000

ETL 1110-1-162

Technical Letter
No. 1110-1-162

30 September 2001

Expires 30 September 2006
Engineering and Design
CHECKLIST FOR HAZARDOUS WASTE LANDFILL COVER
DESIGN

1. Purpose. This engineer technical letter transmits a document for the design of landfill covers at hazardous waste sites. The document was developed to aid in project planning, scheduling, and budgeting; scoping pre-design investigations and architect/engineer services; as a guidance document for the design of landfill covers; and as a source for technical references.

2. Applicability. This letter applies to HQUSACE elements, major subordinate commands, districts, laboratories, and field operating activities (FOA) having hazardous, toxic, or radioactive waste (HTRW) investigation, design, and remedial action responsibility.

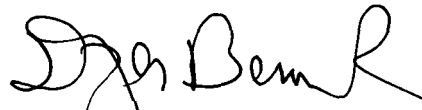
3. Distribution Statement. Approved for public release, distribution is unlimited.

4. References. References are listed in Appendix A.

5. Discussion. This document will focus on covers for hazardous waste sites as described in the Code of Federal Regulations (CFR) 40 CFR 264. In general, the components of a hazardous waste landfill cover consist of a protective cover layer, a drainage layer, a low-permeability layer composed of a geomembrane over a low-permeability soil component, and random fill overlying the waste. Hazardous waste landfill covers also contain some type of gas control system in many instances. This document is divided into three appendices: Appendix A, *References*; Appendix B, *Hazardous Waste Landfill Cover Design Considerations*; and Appendix C, *Hazardous Waste Landfill Cover Design Checklist*. Appendix B briefly discusses design aspects for the cover components. Appendix C contains a list of questions covering pertinent aspects of design that were discussed in Appendix B.

b. The topics listed in this document are to be considered in the design of landfill covers for hazardous waste sites. It is strongly recommended that input be sought from the appropriate technical staff for all phases of design and construction of landfill covers. The involvement of in-house technical expertise is essential to providing a cost-effective, high-quality service to the customer.

3 Appendices
APP A – References
APP B – Hazardous Waste
Landfill Cover Design
Considerations
APP C - Hazardous Waste
Landfill Cover Design
Checklist

A handwritten signature in black ink, appearing to read "Dwight A. Beranek". The signature is fluid and cursive, with the first name "Dwight" and last name "Beranek" clearly distinguishable.

DWIGHT A. BERANEK, P.E.
Chief, Engineering and Construction Division
Directorate of Civil Works